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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,752	05/13/2005	Takeshi Shimoyama	271362US6PCT	1662
22850	7590	09/22/2006	EXAMINER	
C. IRVIN MCCLELLAND OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			HOANG, HUAN	
			ART UNIT	PAPER NUMBER
			2827	

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/534,752	SHIMOYAMA, TAKESHI	
	Examiner	Art Unit	
	Huan Hoang	2827	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 11-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____                                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/13/05</u>  | 6) <input type="checkbox"/> Other: ____                           |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 5, 6 and 8-10 is objected to because of the following informalities:

The phrase "an electrical charge removal operation" (claim 5, lines 4-5 and claim 8, page 46, lines 20-21) should be "the electrical charge removal operation", the phrase "an input/output operation (claim 5, lines 6-7, claim 6, lines 4-5, claim 8, page 46, lines 17-18 and claim 10, lines 7-8 and lines 10-11) should be "the input/output operation" and the phrase "an electrical charge accumulation operation" (claim 10, lines 4-5 and lines 12-13) should be "the electrical charge accumulation operation".

The phrase "if the requested memory cell address agrees with" (claim 8, page 46, lines 11-12) should be " if the requested memory cell address does not agree with".

. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "the electrical charge" (claim 1, line 12) does not clearly refer to "an electrical charge from said memory cells" (claim 1, line 9) or "the electrical charge of the memory cells" (claim 1, lines 4-5) or "an electrical charge" (claim 1, line 3).

The same rejection applies to claims 4 and 8.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Origasa et al..

Origasa et al. discloses an information storage device having all the elements as recited in claims 1 and 2 as follows:

a plurality of memory cells (11, Fig.1);

an amplifier for amplifying the electrical charge of the memory cells (12 and 15, Fig. 1),

wherein a synchronizing clock signal is used for input/output timing of the data (WRITING/READING, Fig. 8) wherein an electrical charge removal operation for moving an electrical charge from said memory cells to said amplifier (column 1, lines 25-29) or an electrical charge accumulation operation for acquiring an electrical charge from said amplifier and accumulating the electrical charge in said memory cells and input/output

operation for said amplifier in relation to the outside of the information storage device are processed while using a single clock of said synchronizing clock signal for synchronization timing (Fig. 8);

wherein the frequency of said synchronizing clock signal is variable (column 17, lines 11-12 and lines 56-58).

***Allowable Subject Matter***

5. Claims 11-17 are allowed.
6. Claims 4 and 8 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
7. Claims 2, 3, 5-7, 9 and 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not disclose the following:

“wherein said operations begin when a request signal is received; and wherein, when said request signal is received, the address of a memory cell related to the request signal is compared against the address of data temporarily retained in said sense amplifier at the time of request signal reception.” as recited in claim 3.

“a comparator for comparing a requested memory cell address against data temporarily retained in said amplifier” as recited in claim 4, claim 8, 11 and 15.

**Conclusion**

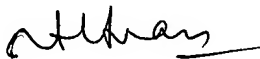
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tomita et al. discloses a semiconductor memory system using a synchronous memory..

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huan Hoang whose telephone number is (571) 272-1779. The examiner can normally be reached on Tues-Fri 8:30AM-7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on (571) 272-1852. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Huan Hoang  
Primary Examiner  
Art Unit 2827